

# Piston Pumps

1-0107-5-US

for progressive grease and oil systems,  
pneumatically or hydraulically actuated



PHU-35-2.5W



PPU-35-2.5W

These piston pumps are respectively available with two different delivery rates.

The pumps can either be flanged directly onto BF-2.5 and BF-5 grease reservoirs or connected to a grease or oil reservoir via a line of tubing ( $\varnothing 12 \times 1$ ).

The pumps have two pairs of fastening holes for mounting "separate from the reservoir" on the wall of a machine – one pair respectively for mounting on the left and right.

The delivery rate can be set by changing the pump's stroke. The setting screw is located on the side of the pump opposite the actuating cylinder and is covered by a cap. A built-in rupture disc serves to protect the pump and system.

To enhance their functional reliability, the pumps are equipped with two outlet valves behind each other.

Pumps PPU-35 and PHU-35 come with a venting screw **E** between the valves so that the pump chamber can be vented during the first start-up; pumps PPU-5 and PHU-5 come with a venting valve **E \*** connected directly to the pump chamber.

Pumps PPU-5 and PHU-5 can be operated with priming pressures **\*\***) of up to 30 bars. The piston simultaneously performs a valve function, which keeps the lubricant from passing by the piston.

All the pumps have a reset spring for the actuating piston so they can be optionally

- actuated via a 3/2-way valve pressurized on one side or
- actuated via a 4/2-way valve pressurized on both sides. When grease is used, pressurization of the actuating piston on both sides is recommended.

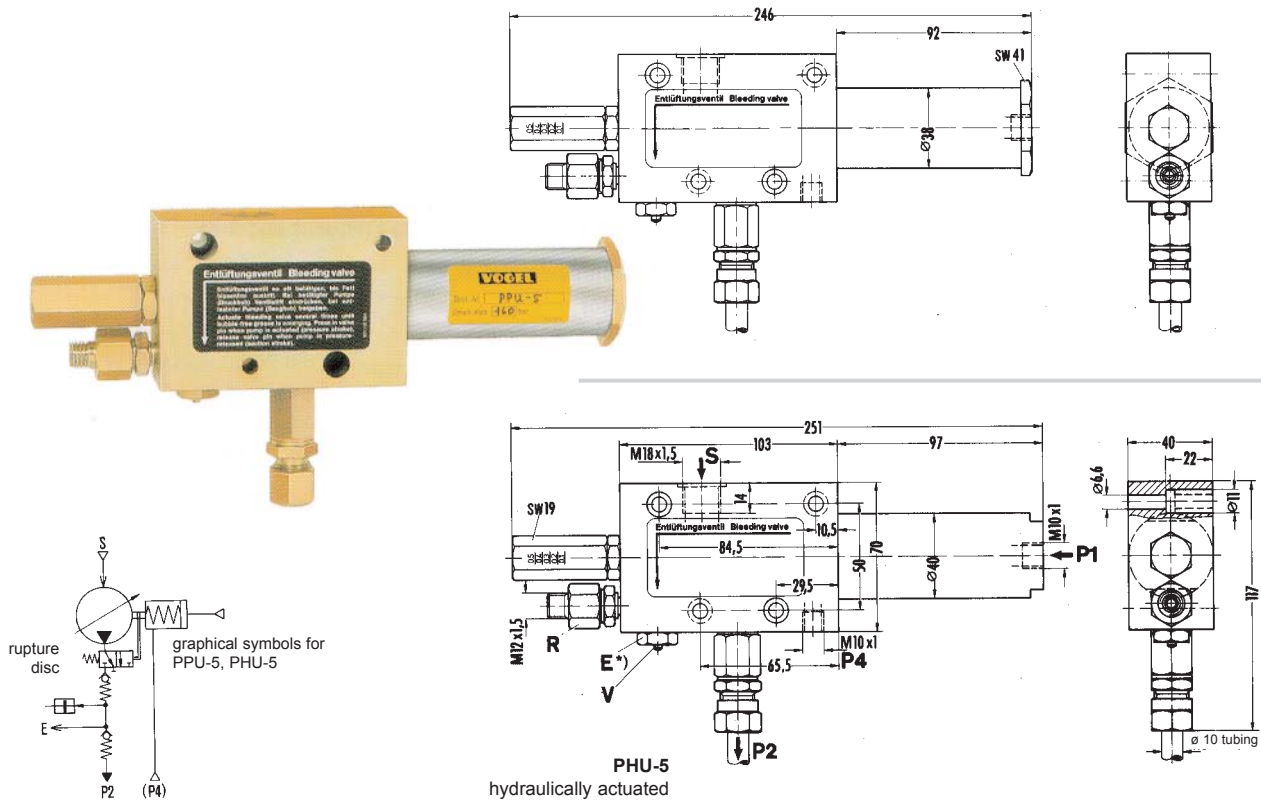
**\*)** To vent the pump chamber, actuate venting valve **(E)** until bubble-free lubricant emerges. Push the valve pin in while the pump is actuated (pressure stroke), and release when pump is not under pressure (suction stroke).

**\*\*)** That dispenses with a respective lubricant reservoir in the case of systems with several pumps, since the lubricant can be delivered by a central priming pump under the pressure of the individual pump's suction side (preferred when grease is used).

## PPU-5, PHU-5

**PPU-5**  
pneumatically actuated

see PHU-5 for missing dimensions



Order No.	Type of actuation	Delivery rate, adjustable (ccm/stroke)	Actuating pressure P1 (bars)	Gear-ratio ...i	Priming pressure max. (bar)	Outlet pressure P2 max. (bar)	Lubricant
PPU-5	pneumatic	0.1 - 0.5	4.5 - 10	1 : 28	30	160 rupture pressure of normal-rupture disc	Oil, grease up to NLGI grade 2
PHU-5	hydraulic		20 - 50	1 : 5.4			

### Rupture discs

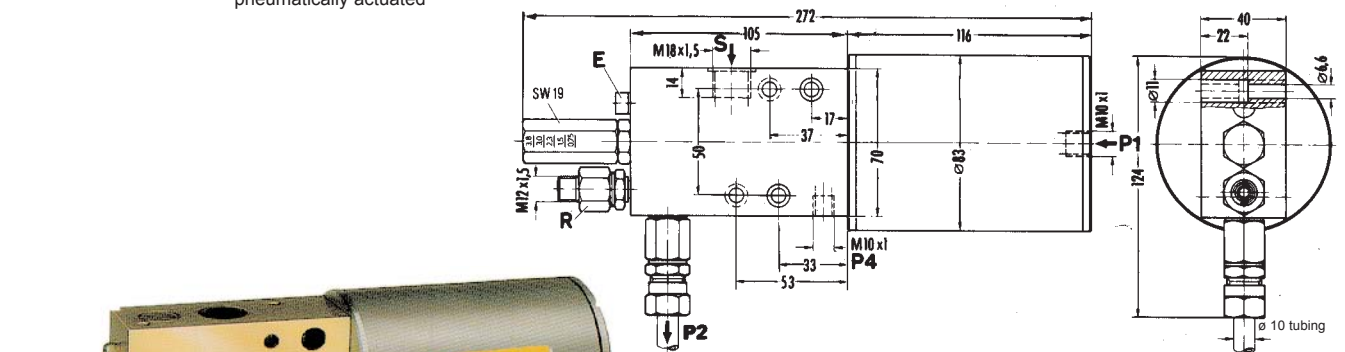
Order No.	Rupture pressure (bar)	Color	Thickness (mm)
PPU-BS60	60	black	0.152
PPU-BS80	80	green	0.203
PPU-BS100	100	yellow	0.254
PPU-BS120	120	red	0.305
PPU-BS140	140	orange	0.356
PPU-BS160	160	silver	0.406
PPU-BS180	180	pink	0.457

\*) To vent the pump chamber, actuate venting valve (E) until bubble-free lubricant emerges. Push the valve pin in while the pump is actuated (pressure stroke), and release when pump is not under pressure (suction stroke).

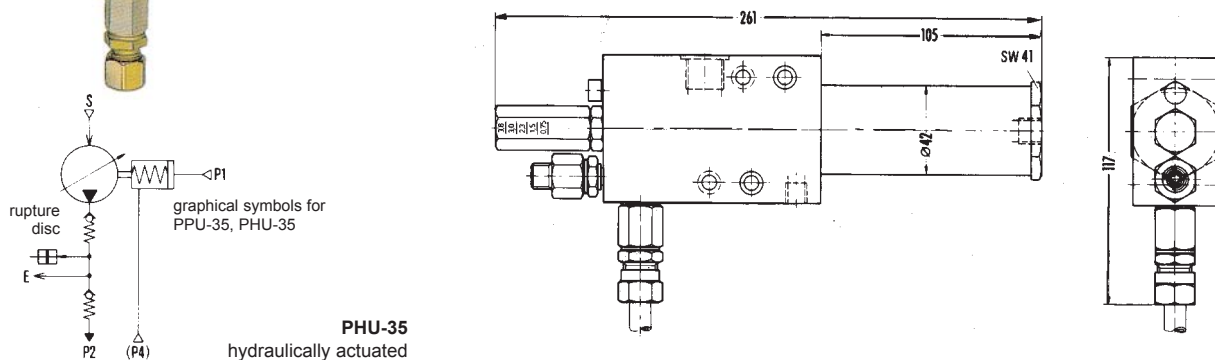
\*\*) That dispenses with a respective lubricant reservoir in the case of systems with several pumps, since the lubricant can be delivered by a central priming pump under the pressure of the individual pump's suction side (preferred when grease is used).

## PPU-35, PHU-35

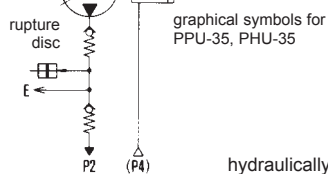
**PPU-35**  
pneumatically actuated



see PPU-35 for missing dimensions



**PHU-35**  
hydraulically actuated



Order No.	Type of actuation	Delivery rate, adjustable (ccm/stroke)	Actuating pressure P1 (bars)	Gear ratio ...i	Outlet pressure P2 max. (bars)	Lubricant
<b>PPU-35</b>	<b>pneumatic</b>	<b>0.7 - 3.5</b>	4.5 - 10	1 : 25	160	Oil, grease up to NLGI grade 2
<b>PHU-35</b>	<b>hydraulic</b>		20 - 50	1 : 5	rupture pressure of normal- rupture disc	

**P1** = compressed air or pressurized oil port

**P2** = main line to system (ø 10 tubing)

**P4** = air compensation line for spring chamber with

a) use of a 3/2-way valve (ø 6 tubing, lay approx. 1 m)

b) port for compressed air or pressurized oil in conjunction with a 4/2-way valve

**S** = suction port

when installed "separate from reservoir", screw in appropriate connecting piece for suction tubing.

(For NLGI grade 2 grease provide for at least.)

**E** = venting screw or venting valve

**R** = rupture disc for return port for ø 6 tubing

**V** = valve pin

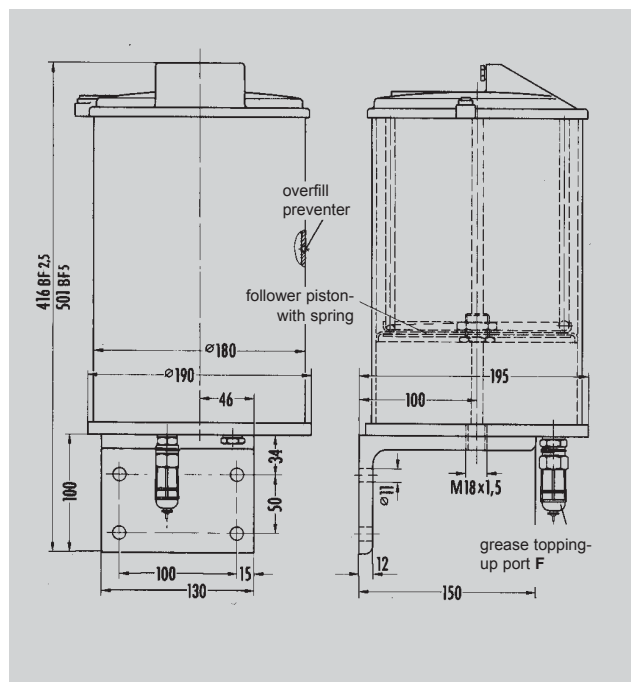
Use connection fittings with cutting-sleeve screw unions to DIN 2353.

## Grease reservoir BF ..

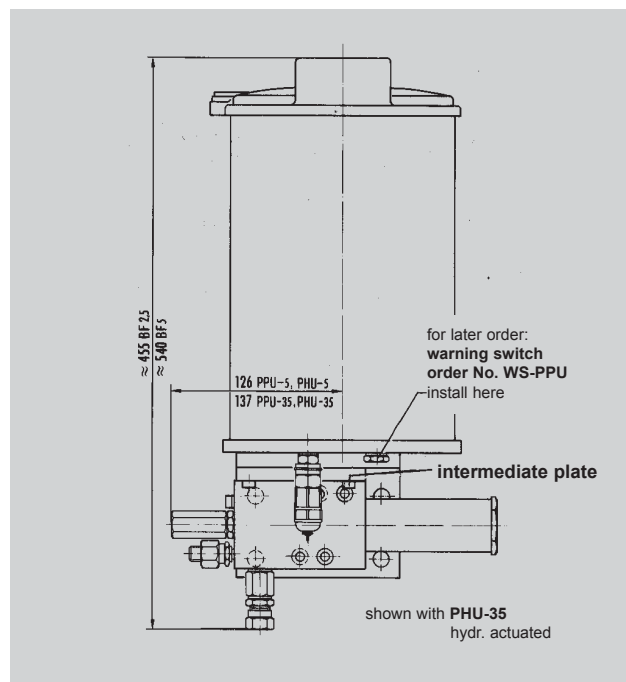
### 2.5 and 5 kg

These reservoirs, intended exclusively up to NLGI grade 2 grease, come with the following features:

- A spring-loaded follower piston presses down on the grease to support the suction.
- The reservoir's casing of acrylic glass makes it easy to see the level of grease



- The reservoir rests on a stable angle iron and is designed for wall mounting.
- Pumps PPU-5, PHU-5, PPU-35, PHU-35 can be flanged onto the bottom of the reservoir with an intermediate plate.
- Optionally, the pumps can also be set up separately from the reservoir. A suction-tubing port is provided for in the reservoir's bottom for this purpose. Provide for M18x1.5 threaded hole.



Grease reservoir order No.	Reservoir capacity (kg)	Grease reservoir with warning switch for critical level Bestell-Nr.
BF2.5	2.5	BF2.5W
BF5	5	BF5W

### Intermediate plate

to screw pump onto grease reservoir  
BF 2.5 (W) or BF 5 (W)

Order No	for pump models
PPU-5FL	PPU-5, PHU-5
PPU-35FL	PPU-35, PHU-35

### Order example for a pump, complete with reservoir

Pump model \_\_\_\_\_  
Pump size \_\_\_\_\_  
Reservoir size \_\_\_\_\_  
with warning switch for critical lubricant level \_\_\_\_\_

When "pump with reservoir, complete" is ordered, the intermediate plate is included in the delivery.

Use connection fittings with cutting-sleeve screw unions to DIN 2353.

Grease topped up via topping-up port F

Coupling socket, order No.: **995-001-500**

Grease topping- up pump, order No.: **169-000-004**

### Leaflet information

1-0107-1-US	Progressive Feeders
1-0107-2-US	Grease Pump Units (models KFA, KFG, GSJ0)
1-0107-3 US	Grease Pump Units (models GSJ, FB, FF)
1-0107-4 US	Grease Pump Units (models PF, PPF, PFH)
1-0107-6 US	Accessories for Progressive Systems
DSK 0-003-02	Modular Feeders PSG 2
DSK 0-003-03	Modular Feeders PSG 3



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